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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,347	04/06/2005	Christiane Jayet-Laraffe	3888-0108PUS1	7547

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EXAMINER

EBERHARD, JEFFREY S

ART UNIT	PAPER NUMBER
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1615

NOTIFICATION DATE	DELIVERY MODE
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12/04/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/510,347	Applicant(s) JAYET-LARAFFE ET AL.	
	Examiner Jeffrey S. Eberhard, Ph.D.	Art Unit 1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 06 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>5/23/2005 and 10/6/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The information disclosure statement filed 5/23/2005 states that U.S. Publication 2004/0023008 is the "English language equivalent of FR 2 814 476." FR 2 814 476 has been placed in the application file, but the information referred to therein has not been considered.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file. In order to perfect the priority, a certified English translation of the French language priority document must be submitted.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2-8, 15 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3 and 19 are indefinite, failing to conform to current U.S. practice. They appear to be a literal translation into English from a foreign document and contain grammatical and idiomatic errors. Regarding claims 2-8 and 15, the phrase "and/or" renders the claim indefinite because it is unclear whether the limitations preceding the phrase are part of the claimed invention.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2, 12 and 14-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Krupnick (WO 99/42658).

The instant claims are drawn to a banknote or other paper article that contains a biocidal agent and is subject to frequent handling. Krupnick teaches “currency paper” that contains an antimicrobial compound substantive to the paper and effective against “bacteria, fungi, viruses and the like” (page 3, lines 11 to 16). Krupnick also teaches that biocidal agent can be added to the paper by any art recognized procedure including immersion of the sheet in a solution containing the agent, by spraying, “surfacing” (sizing is the actual art recognized term) or coating the sheet with a solution of the agent, or by printing on the sheet with an ink containing the biocidal agent (page 5, line 16 to page 6, line 2).

7. Claim 13 is rejected under 35 U.S.C. 102(b) as being anticipated by Lindemann (US 5,177,128).

The instant claim is drawn to a banknote or other paper article that contains a biocidal agent, is subject to frequent handling and is “based on plastic materials.” According to current practice in the paper arts, Examiner takes this to mean that the paper is coated or otherwise treated with a polymer (usually in the form of an aqueous emulsion) containing the biocidal

agent. Lindemann teaches polymer compositions used in this manner (Abstract and column 9, lines 7 to 9) and containing a biocide (column 9, line 19).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krupnick in view of McEntee ("Industrial Antimicrobial Agents," in Kirk-Othmer Encyclopedia of Chemical Technology).

Krupnick is discussed above, but does not teach certain biocides listed in the instant claims. McEntee teaches quaternary ammonium antimicrobial agents including dialkyldimethyl ammonium chlorides (*e.g.*, didecyldimethyl ammonium chloride), p-tolydiiodomethyl sulfone (CASRN 20018-09-1), and iodopropylbutyl carbamate (Table 4; page 11, last paragraph).

Because Krupnick teaches that "any conventional antimicrobial compound that is stable in contact with cellulosic materials and substantive to the cellulose may be used in the method of the invention," it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined the biocide treated currency paper taught by Krupnick with the specific biocides taught by McEntee to obtain product(s) recited by Applicant in the instant claims.

10. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krupnick in view Dreikorn ("Agricultural Fungicides," in Kirk-Othmer Encyclopedia of Chemical Technology).

Krupnick is discussed above, but does not teach certain biocides listed in the instant claim. Dreikorn teaches fungicidal antimicrobial agents including methylbenzimidazolyl carbamate (Carbendazim Table 2).

Because Krupnick teaches that "any conventional antimicrobial compound that is stable in contact with cellulosic materials and substantive to the cellulose may be used in the method of the invention," it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined the biocide treated currency paper taught by Krupnick with the specific biocides taught by Dreikorn to obtain product(s) recited by Applicant in the instant claim.

11. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krupnick in view of (a) ASTM and (b) AFNOR.

Krupnick is drawn to currency paper treated with compounds having biocidal activity, teaching optimization of efficacy by varying the amount of active ingredient and measuring efficacy by standard assays (page 6, lines 10 to end).

The adjustment of particular conventional working conditions (*e.g.*, determining result effective amounts of the ingredients beneficially taught by the cited reference, especially within the broad range recited in claim 9), as well as affecting desired efficacy (as measured by art recognized standard assays), is deemed merely a matter of judicious selection and routine optimization which is well within the purview of the skilled artisan. The artisan of ordinary skill

would recognize the assays recited in claim 10 (American Society for Testing and Materials Method E 2149-01, "Test Method for Determining the Antimicrobial Activity of Immobilized Antimicrobial Agents Under Dynamic Contact Conditions") and claim 11 (Association Française de Normalisation, Method XPG 39010, "Properties of Fabrics - Fabrics and polymer surfaces with antibacterial properties - Characterization and measurement of the bacterio-static activity) as standard measures of antibacterial efficacy. Accordingly, this type of modification would have been well within the purview of the skilled artisan and no more than an effort to optimize results. Optimization of efficacy is obvious to the artisan of ordinary skill at the time the invention was made as is selection of routine art recognized assays of microbial activity to facilitate optimization of the biocidal formulation.

Application Status and Examiner Contact Information

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey S. Eberhard, Ph.D. whose telephone number is (571) 270-3289. The examiner can normally be reached from 7:00 am to 3:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael P. Woodward can be reached on (571) 272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Jeffrey S. Eberhard, Ph.D.
Patent Examiner


MICHAEL P. WOODWARD
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TECHNOLOGY CENTER 1600